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What is Claimed is:

1. A feedforward amplifier comprising:

a first power splitter for splitting an input signal into two parts;

a first vector adjustor for adjusting the amplitude and phase of one output signal of said first power splitter;

a main amplifier for amplifying an output signal of said first vector adjustor;

a second power splitter for splitting an output signal of said main amplifier into two parts;

a first delay circuit for delaying the other output signal of said first power splitter;

a distortion detection power-combiner for synthesizing one output signal of said second power splitter and an output signal of said first delay circuit;

a second delay circuit for delaying the other output signal of said second power splitter;

a second vector adjustor for adjusting the amplitude and phase of the output signal of said distortion detection power-combiner;

an error amplifier for amplifying the output signal of said second vector adjustor;

a distortion suppression power-combiner for synthesizing the output signal of said second delay circuit and the output signal of said error amplifier; and



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communication equipment such as portable telephones, PHS and car telephones.

As apparent from the above description, the invention can provide a feedforward amplifier and a mobile communication equipment of which efficiency does not reduce even at reduced output power.

Further, the invention can provide a feedforward amplifier and a mobile communication equipment of which communication does not stop completely even if the main amplifier fails.